



# SEQUENCE LISTING

<110> Fit Biotech Oyj

<120> Novel selection system

<130> PD53649US01

<140> US10/531,870

<141>

<160> 29

<170> FastSEQ for Windows Version 4.0

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<211> 780

<212> DNA

<213> Escherichia coli

<400> 1

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ctaactgacg gcagaatata cccatataag cgacctcttc cagcacgatg gcgttatgca 180
ccgcatcttc ggcatttttg ccccatgcaa acgggccgtg ggaatggacc agaacgcccg 240
gcatttgccg tgcacgata cctgtttttt caaaggtttc tacgatgacg ttaccgggtt 300
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cgtagaaata gtggcgctgg gtggtgccgg ttgctggaat cgactgacct gcctgcgccc 420
agatggtggc gtggcgcgag tgcgtatgca caatgccgcc aatggagggg aatgcctgat 480
agagcagccg gtgagttggc gtgtcggagg agggcttttt cgtaccttca accacttcac 540
cggtttcgat gctaaccacg accatatcgt cagcggtcac gacgctgtaa tcgacgccgg 600
aaggtttgat cacaaagacg ccgcgctcgc gatcaacggc gctgacgttg ccccatgtga 660
gcgtgaccag gttgtgtttt ggcagcgcca ggttggttcc taatacctgg cgtttgagat 720
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<211> 76

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<220>

<223> Primer

<400> 2

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<211> 64

<212> DNA

<213> Artificial Sequence

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<210> 4  
<211> 81  
<212> DNA  
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<220>  
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<400> 4  
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tagcacgaag gagtcaacat g 81

<210> 5  
<211> 58  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 5  
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<210> 6  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 6  
gccagggttt tcccagtcac ga 22

<210> 7  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 7  
gagcggataa caatttcaca cagg 24

<210> 8  
<211> 22  
<212> DNA  
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<220>  
<223> Primer

<400> 8  
ccaactcacc ggctgctcta tc 22

<210> 9  
<211> 24  
<212> DNA  
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<220>  
<223> Primer

<400> 9  
aatgccgaag atgcggtgca taac 24

<210> 10  
<211> 20  
<212> DNA  
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<220>  
<223> Primer

<400> 10  
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<210> 11  
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<220>  
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<400> 11  
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<210> 12  
<211> 66  
<212> DNA  
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<400> 12  
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tgcttc 66

<210> 13  
<211> 60  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 13  
ggtttgatca caaagacgcc gcgctcgca tcaacggcgc attccgggga tccgtcgacc 60

<210> 14  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 14  
cggcacgaag gagtcaacat 20

<210> 15  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 15  
tgatagagca gccggtgagt 20

<210> 16  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 16  
tcagatcctt ggcggcaaga 20

<210> 17  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 17  
tgtaatcgac gccggaaggt 20

<210> 18  
<211> 1030  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 10E2BS-Promoter-RBS-araD-terminator

<400> 18

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ggtagacatc cgaccggcaa cggtagatc cggaccggca acggtacaga tccgaccggc 180
aacggtacag atccgaccgg caacggtaac gatcccccta gccaattgac tagttctcat 240
gtttgacagc ttatcatcga taagctttta tgcggtagtt tagcacgaag gagtcaacat 300
gttagaagat ctcaaagcc aggtattaga agccaacctg gcgctgcca aacacaacct 360
ggtcacgctc acatggggca acgtcagcgc cgttgatcgc gagcgcgcg tctttgtgat 420
caaaccttcc ggcgtcgatt acagcgatc gaccgctgac gatatggtcg tggttagcat 480
cgaaaccggg gaagtgggtg aaggtagcaa aaagccctcc tccgacacgc caactcaccg 540
gctgctctat caggcattcc cctccattgg cggcattgtg catacgact cgcgccacgc 600
caccatctgg gcgcaggcgg gtcagtcgat tccagcaacc ggcaccaccc acgccgacta 660
tttctacggc accattccct gcaccgcaa aatgaccgac gcagaaatca acggcgaata 720
tgagtgggaa accggtaacg tcatcgtaga aacctttgaa aaacagggtg tcgatgcagc 780
gcaaatgccc ggcgttcttg tccattccca cggcccgttt gcatggggca aaaatgccga 840
agatgcggtg cataacgcca tcgtgctgga agaggctcgt tatatgggga tattctgccg 900
tcagtttagc ccgcagttac cggatatgca gcaaacgctg ctggataaac actatctgcg 960
taagcatggc gcgaaggcat attacgggca gtaatgacag cccgcctaact gagcgggctt 1020
ttttttccat                                     1030
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<210> 19

<211> 696

<212> DNA

<213> Escherichia coli

<400> 19

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ctggtcacgc tcacatgggg caacgtcagc gccgttgatc gcgagcgcg cgtctttgtg 120
atcaaacctt ccggcgctga ttacagcgtc atgaccgctg acgatatggt cgtgggttagc 180
atcgaaaccg gtgaagtggg tgaaggtagc aaaaagccct cctccgacac gccaaatcac 240
cggctgctct atcaggcatt cccctccatt ggcggtattg tgcatacgca ctgcgccac 300
gccaccatct gggcgaggc gggtcagtcg attccagcaa ccggcaccac ccacgcgcac 360
tattttctac gcaccattcc ctgcaccgcg aaaatgaccg acgcagaaat caacggcgaa 420
tatgagtggg aaaccggtaa cgtcatcgta gaaacctttg aaaaacaggg tatcgatgca 480
gcgcaaatgc ccggcgttct ggtccattcc caccgcccgt ttgcatgggg caaaaatgcc 540
gaagatgcgg tgcataacgc catcgtgctg gaagaggctc cttatatggg gatattctgc 600
cgtcagttag cgccgcagtt accggatatg cagcaaacgc tgctggataa acactatctg 660
cgtaagcatg gcgcgaaggc atattacggg cagtaa                                     696
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<210> 20

<211> 687

<212> DNA

<213> Escherichia coli

<400> 20

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aagcccagcg gcgttgccca cgaaacctat aaagcgggcg atatggtggt ggttgatatg 180
agcggcaagg tggtggaagg ggagtatcgc ccactttccg aactgcgac gcatctcgaa 240
ctctaccgtc gttaccgcgc gcttggtggc attgtccata cccactccac tcatgccacc 300
gcatgggcgc aggcggggct ggcatcccg gcgttaggca ccacgcacgc cgactacttc 360
tttggcgaca ttccgtgtac gcgcgggtta agcgaagaag aggtgcaggg cgagtatgaa 420
ctgaacaccg gcaaagtgat tatcgaaacg ctgggcaacg ccgagccgct gcatacgccg 480
ggaattgtgg tgtatcagca cgggcggttc gcctggggga aagatgctca cgatgcggtg 540
cataacgcgg tggatgatga agaagtggcg aaaatggcgt ggattgcccg cggcattaac 600
ccacaactca atcacatcga cagcttcctg atgaataaac acttcatgcg taaacacggg 660
cctaacgctt attacgggca gaagtag                                     687
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<210> 21  
<211> 65  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 21  
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gcttc 65

<210> 22  
<211> 66  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 22  
aaacggctgc ggaattagac cagttatctc ccgaggaagg aaattaattc cggggatccg 60  
tcgacc 66

<210> 23  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 23  
aaacggctgc ggaattagac c 21

<210> 24  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Primer

<400> 24  
gccgtacctg attgagatgt ggag 24

<210> 25  
<211> 696  
<212> DNA  
<213> Escherichia coli

<400> 25  
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ctggtgacgt tcacctgggg caatgtcagc gcggtagacg aaacgcggca atggatggta 120  
atcaaacctt ccggcgctga gtacgacgtg atgaccgccg acgatatggt ggtggttgag 180  
atagccagcg gtaaggtggt ggaaggcagc aaaaaacctt cttccgatac accaacgcat 240

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ctggcgctct accgtcgcta tgccgaaatt ggcggtattg tgcataccca ctcgcgccac 300
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tatttttacg gtgccatccc ctgcacgcga cagatgaccg cagaggagat taacggcgaa 420
tatgaatatc agaccggcga agtgatcatt gaaaccttcg aagaacgtgg caggagtccg 480
gcacaaatcc cggcgggtgct ggtgcattct cacggcccgt tcgcatgggg taaaaacgcc 540
gccgatgccg tgcataacgc cgtagtactc gaagaatgcg cctatatggg tctattctcg 600
cgccagcttg cgccgcagct ccctgcgatg caaacgaac tgctggataa gcactacctg 660
cgtaagcatg gggccaatgc ctattacggg cagtaa 696

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<210> 26

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 26

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cgttacagca aggaacatat caattcgtag tgccggggcg atgaagaatt ccgggggatcc 60
gtcgacc 67

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<210> 27

<211> 65

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 27

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gcaggaggct ggatttatat gttagagcaa ctgaaagccg acgtggtgta ggctggagct 60
gcttc 65

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<210> 28

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 28

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cggcggtaca gcaaggaaca tatc 24

```

<210> 29

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer

<400> 29

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attgaagcgc gtatgcagga gg 22

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